



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,750	05/18/2005	Axel Vierkotter	VIER3001/FJD	8314

23364 7590 03/08/2006

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER

RAEVIS, ROBERT R

ART UNIT	PAPER NUMBER
----------	--------------

2856

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,750

Applicant(s)

VIERKOTTER ET AL.

Examiner

Robert R. Raevis

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-30-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

The disclosure is objected to because of the following informalities: "upper part 30" (p. 6, line 1 from last) should read – upper part 31--, and "41" (p. 7, line 8 from last) should read –40--.

Appropriate correction is required.

Claims 8-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 8, isn't the "connection" (line 6) a part of the "cable gland" (line 4)? In that sense, the connection is (inadvertently) being claimed twice (i.e. double inclusion). Possibly, the word "and" (line 5) should read – the gland including --.

As to claim 10, "especially" is indefinite. Is the computing unit a microprocessor?

As to claim 11, this claim suggests that there are a plurality of "optocouplers" for "each" sensor circuit, but that does not appear to be consistent with the written specification and drawings. Should "optocouplers" read – an optocoupler --?

As to claim 12, "said sensor circuit" lacks antecedent basis. Also, how can the power supply circuit be decoupled from "the measuring device", as the "at least one power supply" (line 2) is part of the "measuring device" (line 1)? Clearly, the decoupling is on a more narrow scale. (Contrast with the phrase "*remaining* circuit portions" (italics added, line 12 of p. 7.)

Art Unit: 2856

As to claim 14, how does a claimed "device" (line 1) have "two" decoupled outputs when the body of the claim has structure that will support only one output? (Base claim 8's single "shielded sensor" (line 4 of claim 8) does not produce different outputs that are decoupled. It is a *plurality* of sensors are required to allow for decoupled outputs, but the claim does not call for a plurality. What are the "outputs" outputs from?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under either 35 U.S.C. 102(b), or in the alternative, under 35 U.S.C. 103(a) as obvious over Bachle.

Bachle teaches a device, including: terminal box 22 of an electrical conductive material; a cable connector (that employs a rubber grommet element) in the wall of the box; an electrically conductive connection (spring 34) for "facilitating an electrical ground between the armor 74 of a cable and connector 10" (col. 3, lines 58-62), the connector of which is secured to the box 22.

As to claims 8 and 9, the connector 10 may be called a "gland", as it collective both secures and grounds the cable. (This is evidenced by GB 2 213 329's "clamping cable gland" title for GB's Figure 1.) In addition, the phrases "for the conditioning...gas

Art Unit: 2856

analysis" (lines 1-2), "for a shielded sensor..sensor signals" (lines 4-5) are statements of intended use, and do not add structure to the claimed "device". Also, the conductive material of the spring would provide a means for electrical contacting of conductive material with a shield of a sensor cable if such a cable were attached. In the alternative, it would have been obvious to employ Bachle's connector and box with a sensor cable because sensor cables require secure connections to boxes/housings, suggestive of use of Bachle's connector.

Claims 12,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bachle.

It is known to employ sensors with cables that pass into/through housings.

It is deemed not known to apply the claimed grommet system for such a system.

As to claims 12,13, it would have been obvious to employ Bachle's connector and box with a sensor cable because sensor cables require secure connections to boxes/housings, suggestive of use of Bachle's connector. In addition, it is known to employ transformers to supply proper voltages to components in a sensor system.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okazaki et al teach (Figure 11) a plurality of wires 24 from a sensor 15 passing though the wall of a housing via a grommet 25.

Art Unit: 2856

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert R. Raevis

RAEVIS